

WHAT IS CLAIMED IS:

1. A communications system, comprising:

a transceiver capable of using a wireless communications link for transmission and reception of wireless signals;

5 a Global Positioning System (GPS) receiver, coupled to the transceiver and useable for at least computing a position of the transceiver, comprising:

a first data path for correlating an incoming GPS signal, located within a scanned signal window, with a locally generated signal; and

10 a second data path for verifying the incoming GPS signal, located within the scanned signal window, against a lock signal, the second data path determining whether the incoming GPS signal has at least one characteristic which differentiates the incoming GPS signal from an auto-correlated signal, wherein the GPS receiver can change the locally generated signal to continue to search the scanned signal window for a second incoming GPS signal if the incoming GPS signal lacks the at least one characteristic.

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2. The communications system of claim 1, wherein the first data path, the second data path, and the GPS receiver are located on a single integrated circuit.

3. The communications system of claim 2, wherein the at least one characteristic is a  
20 predetermined signal strength of the incoming GPS signal.

4. The communications system of claim 2, wherein the at least one characteristic is a predetermined Signal-to-Noise Ratio (SNR) of the incoming GPS signal.

5. The communications system of claim 2, wherein the at least one characteristic is selected from a group comprising a correlation to a different satellite code being stronger than a correlation to a desired satellite code, and a different delay of the same satellite code being stronger than a correlation to a locally generated code delay.

6. The communications system of claim 2, wherein the at least one characteristic is at least two characteristics selected from a group comprising: a predetermined signal strength of the incoming GPS signal, a predetermined Signal-to-Noise Ratio (SNR) of the incoming GPS signal, a correlation to a different satellite code being stronger than a correlation to a desired satellite code, and a different delay of the same satellite code being stronger than a correlation to a locally generated code delay.

7. The communications system of claim 2, wherein the first data path is controlled by a first central processing unit (CPU), and the second data path is controlled by a second CPU.

8. The communications system of claim 2, wherein the transceiver is a cellular telephone transceiver.

9. The communications system of claim 8, wherein the cellular telephone transceiver and the GPS receiver use a single local oscillator to provide a first reference frequency to the cellular transceiver and a second reference frequency to the GPS receiver.

10. The communications system of claim 9, wherein the first reference frequency and the second reference frequency are the same reference frequency.

11. The communications system of claim 10, wherein the cellular telephone transceiver  
5 and the GPS receiver share a processing unit.

12. The communications system of claim 11, wherein the GPS receiver can send a position calculation via the cellular transceiver.

10 13. The communications system of claim 12, wherein the position calculation is at least one pseudorange.

14. The communications system of claim 12, wherein the position calculation is raw GPS data.

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15. The communications system of claim 12, wherein the position calculation is a determined position of the GPS receiver that is co-located with the cellular telephone transceiver.

16. The communications system of claim 15, wherein the cellular telephone transceiver  
20 provides data to the GPS receiver.

17. The communications system of claim 16, wherein the provided data comprises ephemeris information.

18. The communications system of claim 16, wherein the provided data comprises time information.

19. The communications system of claim 16, wherein the provided data comprises  
5 coarse position information.

20. The communications system of claim 16, wherein the provided data is selected from a group comprising: time information, ephemeris information, and coarse position information.